# The California Energy Commission's First Annual Climate Change Conference

JUNE 9-10, 2004

# FROM CLIMATE TO ECONOMICS: ANTICIPATING IMPACTS OF CLIMATE CHANGE IN CALIFORNIA

**Sponsor:** CALIFORNIA ENERGY COMMISSION

Co-sponsors: UC BERKELEY AND SCRIPPS/UC SAN DIEGO

Place: Radisson Hotel, 500 Leisure Lane, Sacramento, California

Telephone: (916) 922–2020 www.radisson.com/sacramentoca

**Audience:** The conference is oriented to a technical audience. The presentations will, however, be tailored to facilitate an interdisciplinary exchange of information. This approach should make the conference of interest to technical managers, policy advisors and to the public in general.

#### Goals:

- Introduce the California Climate Change Center (Center) as a primary nexus for climate change research in the state of California
- Present findings produced by researchers working with the Center
- Provide a forum for individuals interested in regional climate-change issues to interact and exchange information with PIER climate change technical staff and associated researchers.
- Present research findings on climate change research to facilitate crossdisciplinary discussions among individuals from very disparate backgrounds (e.g. economics, atmospheric sciences, ecology, policy, etc.).
- Provide an opportunity for networking and collaboration among institutions addressing regional climate change issues elsewhere in the United States and abroad.

Registration: The maximum number of attendees is 250. All participants must register by COB June 1, 2004 via the following website <a href="http://www.seeuthere.com/event/m2c640-909050708234">http://www.seeuthere.com/event/m2c640-909050708234</a>

The registration fee for General Attendees is \$50. Registration is free to employees with local and state agencies, general session speakers, poster presenters, students, and postdoctoral researchers. If you fall into one of these categories, you must still register to reserve a space. Simply select your participant type on the registration page.

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Hotel Information: The meeting will take place at the Radisson Hotel Sacramento. A block of hotel rooms has been reserved at the hotel at the California State Per Diem rate of \$84. You must contact the hotel directly by May 14, 2004. Make sure to identify yourself as a participant in the First Annual Conference on Climate Change. Please refer to the Hotel and Travel Information page on the Registration website for additional details.

**Additional meeting:** Following the conference, there will be an open meeting on June 11<sup>th</sup> to discuss a draft regional model inter-comparison protocol that is scheduled to be released in the first week of June. Several national and international experts on regional modeling will attend this meeting to discuss the draft protocol and coordination of activities. Place: Hearing Room A. California Energy Commission. Please refer to the preliminary agenda for detail.

#### PRELIMINARY AGENDA

#### WEDNESDAY, June 9, 2004

I. <u>Welcome and Introduction</u>

Arthur Rosenfeld, Commissioner, California Energy Commission (CEC) 8:00 a.m. – 8:15 a.m.

II. Policy Overview to Inform the Research Agenda

Mike Chrisman, Secretary of Resources (invited)
Alan Lloyd, Chairman, Air Resources Board
Jim Boyd, Commissioner, California Energy Commission
8:15 a.m. – 9:15 a.m.

COFFEE BREAK 9:15 a.m. - 9:30 a.m.

- III. <u>Background Information</u> (Chair: Kelly Birkinshaw, CEC)
  - a) Climate Detection and Attribution
     Ben Santer, Lawrence Livermore National Laboratory (LLNL)
     9:30 a.m. 10:00 a.m.
  - b) Preliminary Evaluation of the Potential Impacts of Climate Change in CA. Joel Smith (Stratus Consulting) 10:00 a.m. – 10:30 a.m.
  - c) PIER Climate Change Research Strategy
     Guido Franco and Alan Sanstad (CEC and Lawrence Berkeley National Laboratory (LBNL))
     10:30 a.m. – 11:00 a.m.
- IV. <u>Mitigation of GHG Emissions: Lessons From the Past</u> (Chair: Michael Hanemann, UC Berkeley)
  - a) Potential Carbon Markets in California: Lessons from Other Programs Alex Farrell (UC Berkeley) 11:00 a.m. – 11:20 a.m.
  - b) Emissions Abatement Technology Innovation and Diffusion Margaret Taylor (UC Berkeley) 11:20 a.m. – 11:40 a.m.
  - c) California Energy Balances Lynn Price (LBNL) 11:40 a.m. – 12:00 a.m.

LUNCH: 12:15 p.m. – 1:30 p.m. - Keynote Speaker: V. Ramanathan Atmospheric Brown Clouds and Global Dimming: Impacts on the Pacific and California

- V. <u>Climate Monitoring and Analysis I:</u> (Chair: Dan Cayan, Scripps)
  - a) Changes in Stream Flow and Temperatures in the Western United States and Fluctuations in the North Pacific Oscillation in the last 100 years. TBD (Scripps) 1:30 p.m. – 2:10 p.m.
  - b) Sea Level and Coastal Wave Fluctuations: A Historical Perspective Peter Bromirski (Scripps)
     2:10 p.m. – 2:30 p.m.
- VI. Development of Tools Designed to Estimate the Costs/Benefits of GHG

  Reductions: Preliminary Results: (Chair: Doug Wickizer (CDF) or Matt

  Summer (CDFA))
  - a) Potential Carbon Supply in California Forests and Rangelands.
     Sandra Brown or John Kadyszewski (Winrock)
     2:30 p.m. 3:00 p.m.
  - b) Potential of Carbon Sequestration in California Soils.
     Bill Salas and Changsheng Li (Applied Geosolutions and U. of New Hampshire)
     3:00 p.m. 3:30 p.m.
  - c) A Dynamic General Equilibrium Model for California for Climate Change Studies.
     David Roland-Host and/or Peter Berck (UC Berkeley) 3:30 p.m. – 4:00 p.m.

BREAK 4:00 p.m. – 4:15 p.m.

- VII. Climate Monitoring and Analysis II: (Chair: Maurice Roos, DWR)
  - a) California Climate Data Archive Kelly Redmond (WRCC)4:15 p.m. – 4:35 p.m.
  - b) Enhanced Climate Monitoring and Orographic Influences on Precipitation
     Jessica Lundquist and Mike Dettinger (Scripps)
     4:35 p.m. – 5:10 p.m.

POSTER SESSION (Chair: Ed Vine (UCOP)) Brief introduction 5:10 p.m. – 5:25 p.m.

#### Thursday, June 10th

#### VIII. Climate Model Projections for California (Chair: Guido Franco, CEC)

a) Regional Modeling Activities at UC Santa Cruz: coastal upwelling and extreme events

Lisa Sloan (UC Santa Cruz) 8:00 a.m. – 8:30 a.m.

- b) Recent Advances and Analyses in Land Surface and Subsurface Processes within the Regional Climate System Model Norm Miller (LBNL)
   8:30 a.m. – 9:00 a.m.
- c) Climate Re-analysis for California
   Hideki Kanamaru and Masao Kanamitsu (Scripps)
   9:00 a.m. 9:30 a.m.

COFFEE BREAK (Posters will be on display) 9:30 a.m. – 10:00 a.m.

- IX. The Importance of Regional Assessments: (Chair: Larry Myer, LBNL)
  - a) Implications of 21st Century Climate Change for the West Coast Water Resources: Results of the Accelerated Climate Prediction Initiative. University of Washington - Climate Impacts Group Dennis P. Lettenmaier 10:00 a.m. – 10:30 a.m.
  - b) Title (TBD)
    Alex Haxeltine (Tyndall Research Center, UK)
    10:30 a.m. 11:00 a.m.
  - c) Integrated Regional Climate Impacts Assessments: Lessons Learned and New Analyses for California
     Peter Frumhoff (Union of Concerned Scientists)
     11:00 a.m. – 11:30 a.m.

LUNCH 11:30 a.m. - 1:00 p.m. - Keynote Speaker: (TBD)

- X. Climate Change and Water Resources in California: New Approaches (Chair: Francis Chung, DWR)
  - a) Using Modern Forecasting Tools for the Management of Reservoirs in California: An Adaptation Strategy

Kosta Georgakakos (HRC/SIO) 1:00 p.m. – 1:30 p.m.

- b) A New Approach Using the CALVIN Model: Water Resources Impacts Jay Lund (UC Davis) 1:30 p.m. - 2:00 p.m.
- c) Water Reliability and Climate Change Michael Hanemann (UC Berkeley) 2:00 p.m. 2:30 p.m.

#### BREAK

2:30 p.m. – 2:45 p.m.

- XI. Dealing with Uncertainty in Regional Climate Change Estimates. (Chair: Terry Surles)
  - a) A New Approach to Modeling Biodiversity Change for California Lee Hannah (Conservation International)
     2:45 p.m. – 3:15 p.m.
  - Suggestions on How to Treat Uncertainty in Climate Change Studies and Policy Formulation
     Steve Schneider (Stanford)
     3:15 p.m. - 3:50 p.m.

Final Remarks
Guido Franco (CEC)
3:50 p.m. – 4:00 p.m.

# **CEC Meeting on Intercomparison of California Climate Simulations**

## Hearing Room A, 1516 9<sup>th</sup> St. Sacramento, CA.

## **Preliminary Agenda**

### Friday, June 11, 2004

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8:30	Workshop goals Philip Duffy, Lawrence Livermore National Laboratory (LLNL)
8:45	Introduction and opening remarks Guido Franco, California Energy Commission (CEC)
9:00	Policy perspective TBD
9:15	AMIP: Approach and Lessons Learned Larry Gates, Program for Climate Model Diagnosis and Intercomparison (PCMDI)
9:45	Discussion
10:00	PRUDENCE: Approach and Lessons Learned Jens Christensen, Danish Meteorological Institute
10:30	Discussion
10:45	Break
11:00	PIRCS: Approach and Lessons Learned Bill Gutowski, Iowa State University
11:30	Discussion
11:40	OURANOUS activities and plans
12:15	Daniel Caya, Université du Québec à Montréal Discussion
12:30	Lunch
1:30	NARCCAP objectives and plans Linda Mearns, National Center for Atmospheric Research, USA.
2:00	Discussion
2:15	Unresolved issues in draft protocol Phil Duffy, LLNL

- 2:45 Discussion
- 3:30 Break
- 3:45 Continued discussion
- 5:00 Adjourn